

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 13, 2004

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
J. J. McConnell, Deputy Technical Director
FROM: T. D. Burns/ J. S. Contardi
SUBJECT: SRS Report for Week Ending August 13, 2004

Dr. Burns concluded his tour as the Board's Savannah River Site representative on August 13, 2004. His technical insight, strong work ethic, and common sense approach to nuclear safety have been instrumental in enhancing the safety posture of site operations. Dr. Burns will be joining Dr. Charles Keilers as the second Board site representative at the Los Alamos National Laboratory.

Depleted Uranyl Nitrate: Earlier this year WSRC suspended shipments of depleted uranyl nitrate (DUN) due to budget constraints (site rep weekly 3/26/04). The DUN is sent to an offsite vendor, Materials and Energy Corporation, in Oak Ridge Tennessee for stabilization prior to disposal at the Nevada Test Site. On Monday shipments resumed and at least 11 more will be made this year. Thus far, approximately 27,000 gallons of DUN have been treated and dispositioned.

Defense Waste Processing Facility: Since May 2004, the safety significant gas chromatograph systems have failed a total of 10 times while the facility was in operation mode. The gas chromatographs measure the concentration of hydrogen in the slurry mix evaporator and sludge receipt and adjustment tank headspace. The current system includes two gas chromatographs per tank, but numerous single point failure modes exist. WSRC has identified these weaknesses and is developing a path forward to improve the reliability of the system. DWPF has filled a total of 1,682 canisters, and placed 1,673 of these in the Glass Waste Storage Building.

Glass Waste Storage Building #2: On June 22, 2004, excavation work began on Glass Waste Storage Building #2. The Krog company is the prime contractor for the facility, and the Bell company will perform the majority of the construction. The fixed price contract including design and construction is estimated at \$70 million. Construction is scheduled to be completed in early December 2005.

Tritium Operations: Project control for the Tritium Facility Modernization and Consolidation (TFM&C) project has been turned over to Operations. Critical decision-4 for closeout of the project is expected in mid-September. Process startup and material introduction have occurred. Consolidation of tritium operations will occur following the deinventory of Building 232-H, which will require utilization of TFM&C. Once Building 232-H has been deinventoried, it will be segregated from the remaining operational tritium facilities.

Resumption of reservoir loading operations in two process lines (site rep weekly 7/2/04) requires approval from the Los Alamos National Laboratory (LANL). Approval has been delayed due to the recent shutdown at LANL.